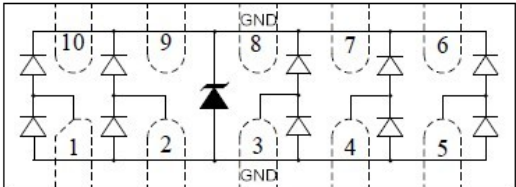


ESD	Features
 	✧ Transient protection for high-speed data lines IEC 61000-4-2(ESD) ±25KV(Air) ±20KV(Contact) IEC 61000-4-4(EFT)40A(5/50ns) Cable Discharge Event(CDE) ✧ Package optimized for high-speed lines ✧ Ultra-small package(2.5mm*1.0mm*0.50mm) ✧ Protects four data lines ✧ Low capacitance:0.2pF for each channel ✧ Low leakage current ✧ Low clamping voltage ✧ Each I/O pin can withstand over 1000 ESD strikes for ±8KV contact discharge
MACHANICAL DATA ✧ DFN2510 package ✧ Flammability Rating: UL 94V-0 ✧ Terminal: Matte tin plated. ✧ Packaging: Tape and Reel ✧ High temperature soldering guaranted:260℃/10s ✧ Reel size: 7 inch ORDERING INFORMATION ✧ Device:ESD0524P ✧ Package: DFN2510 ✧ Marking: T54SP ✧ Material: Halogen free ✧ Packing: Tape & Reel ✧ Quantity per reel: 3,000pcs	APPLICATIONS ✧ Serial ATA ✧ PCI Express ✧ Desktops, Servers and Notebooks ✧ MDDI Ports ✧ USB 2.0/3.0 and Data Line Protection ✧ Display Ports ✧ High Definition Multi-Media Interface (HDMI) ✧ Digital Visual Interface (DVI)

ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power(8/20μs)	100	W
V _{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±25 ±20	kV
T _{OPT}	Operating Temperature	-55/+125	°C
T _{STG}	Storage Temperature	-55/+150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage	Any I/O pin to GND			5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA Any I/O pin to GND	6.0		10.0	V
I _R	Reverse Leakage Current	V _{RWM} = 5V Any I/O pin to GND			1.0	μA
V _C	Clamping Voltage	I _{PP} = 1A, t _p = 8/20μs Any I/O pin to GND			15	V
		I _{PP} = 4A, t _p = 8/20μs Any I/O pin to GND			25	V
C _{ESD}	Parasitic Capacitance	V _R = 0V, f = 1MHz Between I/O and GND		0.2	0.25	pF
C _{ESD}	Parasitic Capacitance	V _R = 0V, f = 1MHz Between I/O and I/O		0.2	0.25	pF

Note: I/O pins are pin 1,2,4,5, GND pins are pin 3,8.

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Power Derating Curve

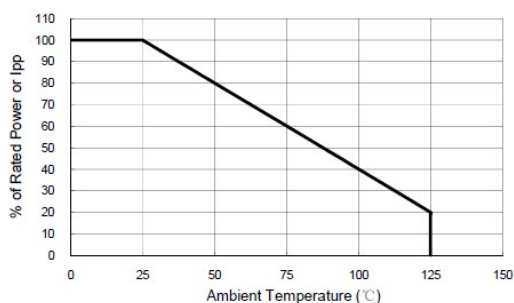


Fig 2 Clamping Voltage vs Peak Pulse Current

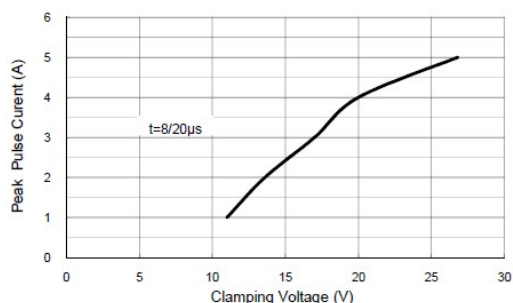


Fig 3 Voltage Sweeping of I/O to I/O or GND

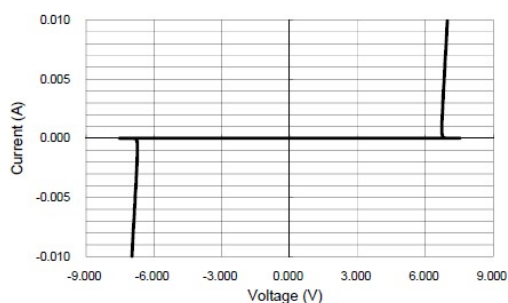


Fig 4 Voltage vs Capacitance I/O to I/O or GND

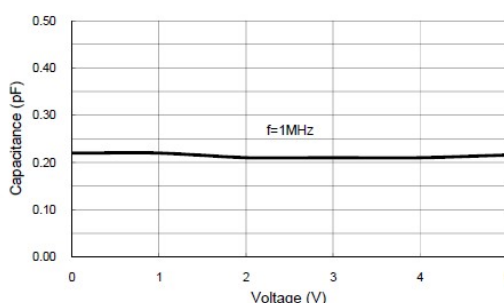


Fig 5 ESD Clamping of I/O to GND
(+8kV Contact per IEC 61000-4-2)

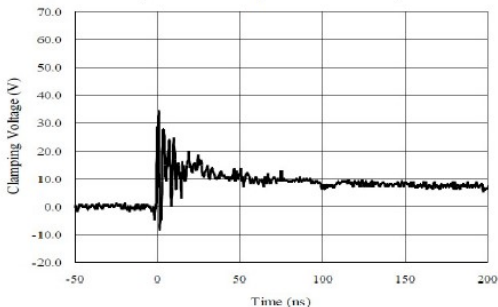
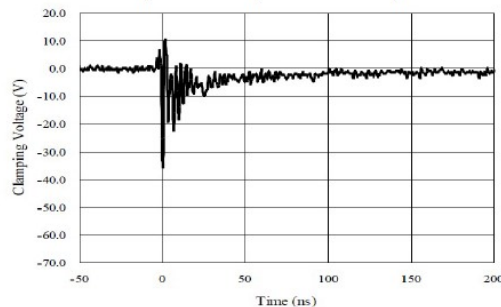
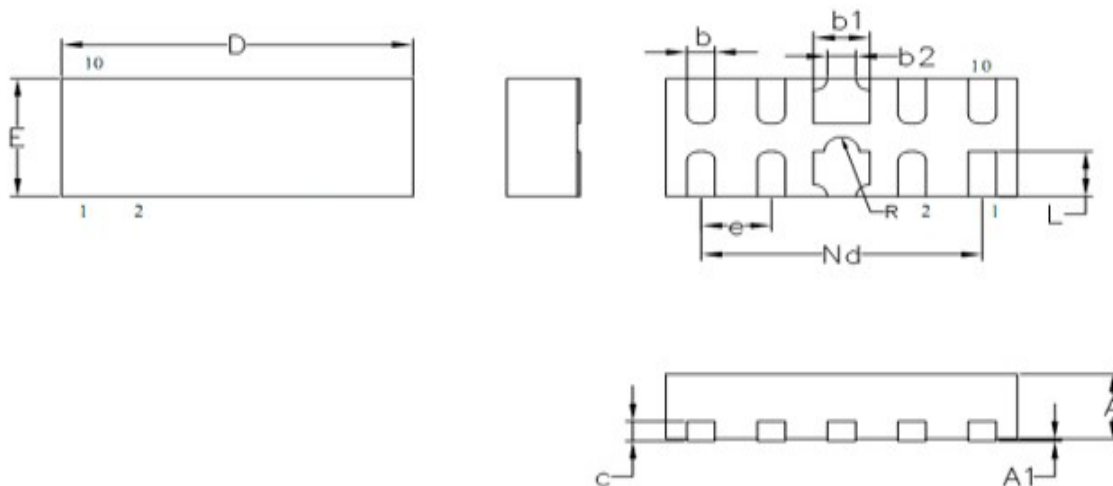


Fig 6 ESD Clamping of I/O to GND
(-8kV Contact per IEC 61000-4-2)



DFN2510 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions (mm)		
	Min.	Nom.	Max.
D	2.45	2.50	2.55
E	0.95	1.00	1.05
b1	0.35	0.40	0.45
b2	0.20REF		
b	0.15	0.20	0.25
L	0.33	0.38	0.43
Nd	2.00BSC		
e	0.50BSC		
R	0.10	0.125	0.15
A	0.45	0.50	0.55
c	0.15REF		
A1	0.00	-	0.05